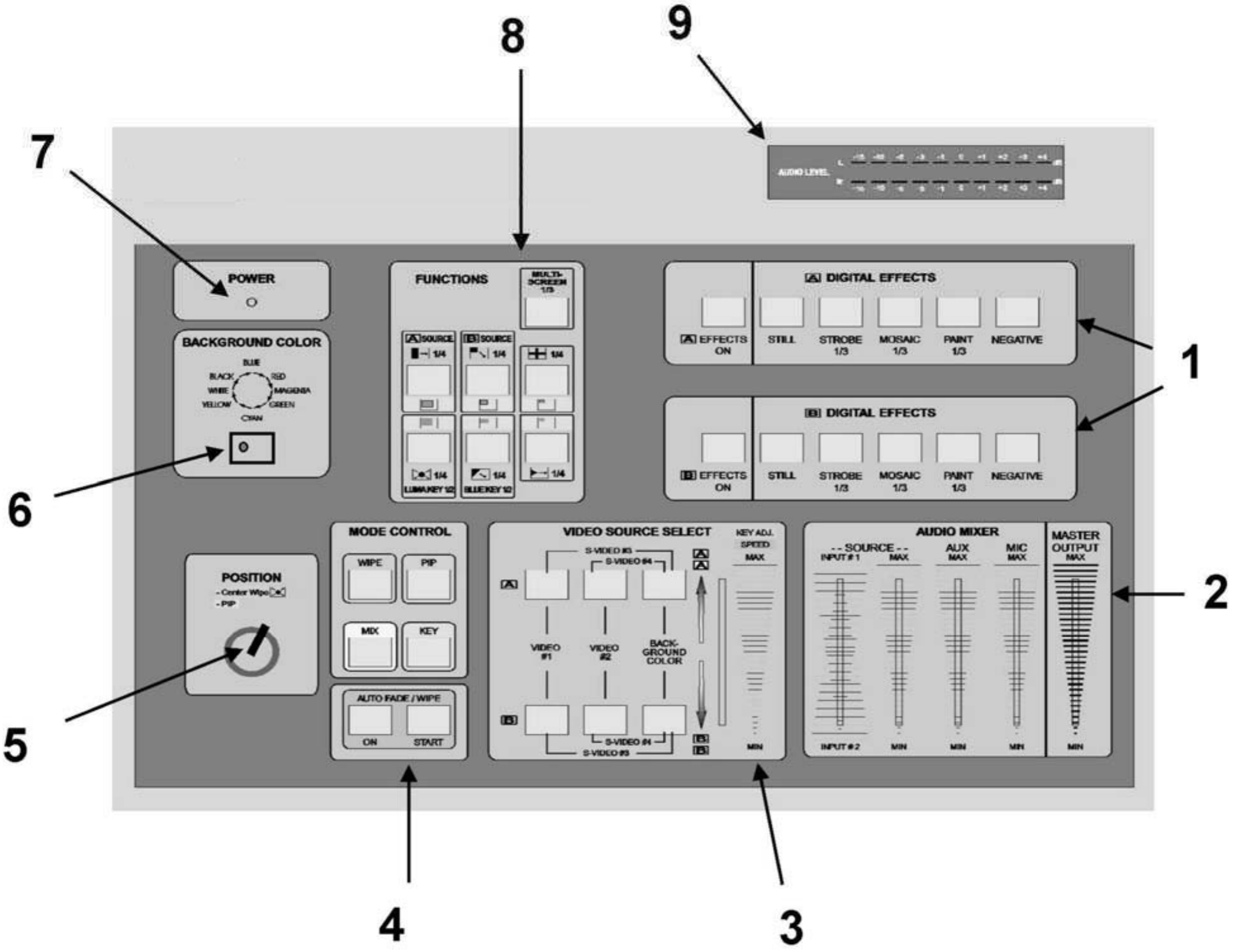
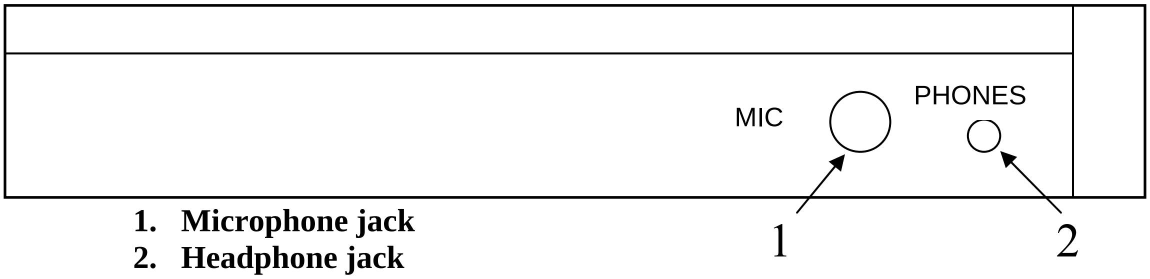
CONTROLS AND FUNCTIONS

Control Panel diagram


8
9
7
1
6
2
5
4
3
AUDIO LEVEL
POWER
BACKGROUND COLOR
BLUE
BLACK
RED
WHITE
MAGENTA
YELLOW
GREEN
CYAN
FUNCTIONS
MULTI-SCREEN 1/3
A SOURCE
B SOURCE
LUMA KEY 1/2
BLUE KEY 1/2
A DIGITAL EFFECTS
A EFFECTS ON
STILL
STROBE 1/3
MOSAIC 1/3
PAINT 1/3
NEGATIVE
B DIGITAL EFFECTS
B EFFECTS ON
POSITION
- Center Wipe
- PIP
MODE CONTROL
WIPE
PIP
MIX
KEY
AUTO FADE / WIPE
ON
START
VIDEO SOURCE SELECT
S-VIDEO #3
S-VIDEO #4
VIDEO #1
VIDEO #2
BACK-GROUND COLOR
KEY ADJ. SPEED
MAX
MIN
AUDIO MIXER
- - SOURCE - -
INPUT # 1
INPUT # 2
AUX
MIC
MASTER OUTPUT

1. **Digital Effects keys**
2. **Audio mixer controls**
3. **Source Selection keys**
4. **Mode Control keys**
5. **Joystick position control**
6. **Background color selection control**
7. **Power Indicator Light**
8. **Wipe Mode Keys**
9. **Audio Mixer level**

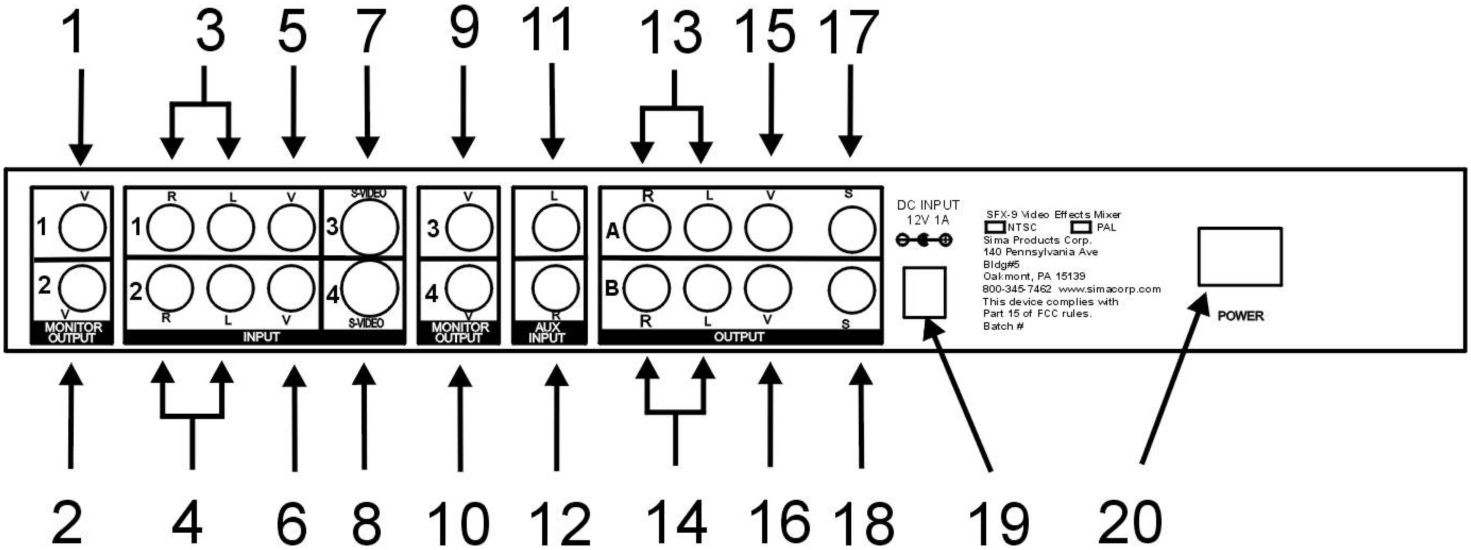
Front Panel diagram


MIC
PHONES
1
2

1. **Microphone jack**
2. **Headphone jack**

Basic Operations

Rear panel diagram

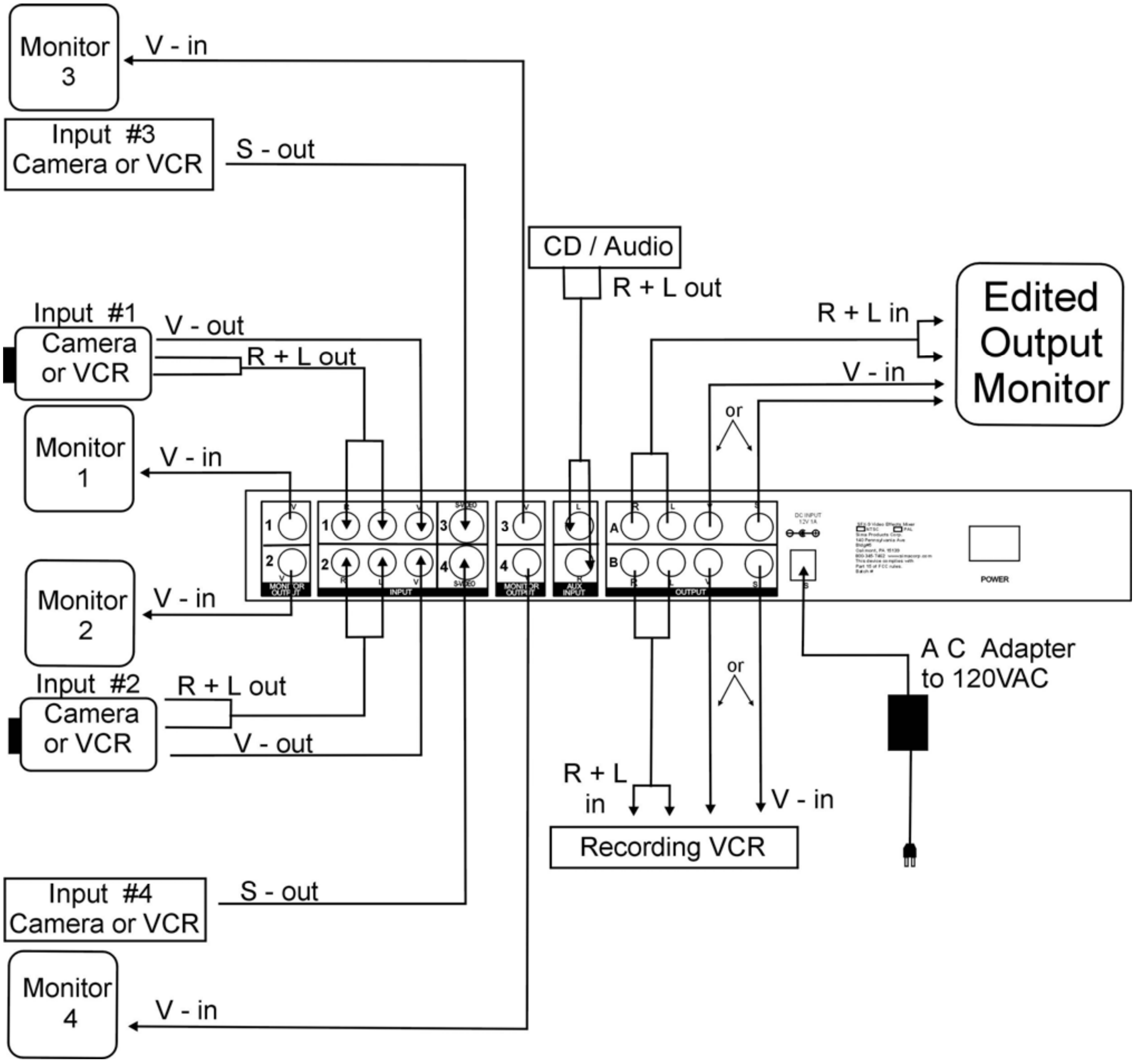

1
3
5
7
9
11
13
15
17
V
R
L
V
S-VIDEO
V
L
R
L
V
S
1
1
3
3
A
2
2
4
4
B
V
R
L
V
S-VIDEO
V
R
R
L
V
S
MONITOR OUTPUT
INPUT
MONITOR OUTPUT
AUX INPUT
OUTPUT
DC INPUT
12V 1A
SFX-9 Video Effects Mixer
NTSC
PAL
Sima Products Corp.
140 Pennsylvania Ave
Bldg#5
Oakmont, PA 15139
800-345-7462 www.simacorp.com
This device complies with
Part 15 of FCC rules.
Batch #
POWER
2
4
6
8
10
12
14
16
18
19
20

1. Video Monitor Output (Source 1)
2. Video Monitor Output (Source 2)
3. Audio R / L Input (Source 1)
4. Audio R / L Input (Source 2)
5. Composite video Input (Source 1)**
6. Composite video Input (Source 2)**
7. S-video Input (Source 3)**
8. S-video Input (Source 4)**
9. Video Monitor Output (Source 3)
10. Video Monitor Output (Source 4)
11. Aux L audio input
12. Aux R audio input
13. Audio R / L Output *
14. Audio R / L Output *
15. Composite Video Output *
16. Composite Video Output *
17. S-Video Output *
18. S-Video Output *
19. 12V DC power jack
20. 12V DC power supply
21. 120V AC power cord
22. Off/On Power switch

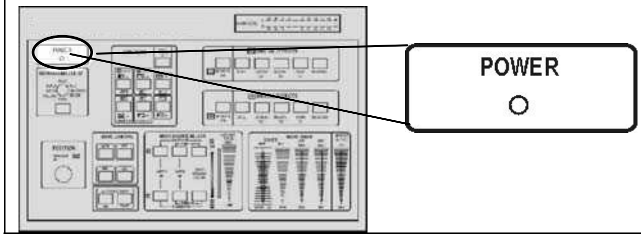
*** Note:** The A and B outputs are identical sets of the same output signals. These outputs do not correspond to the A and B source selections on the control panel.

** **Note**: This device abides by copy protection regulations and will not accept copy-protected signals. When a copy-protected signal is fed into this video mixer, the unit will display a blank screen and the Video Source Select Key light will flash.

Typical Hook-up


Monitor 3
V - in
Input #3 Camera or VCR
S - out
CD / Audio
R + L out
Input #1 Camera or VCR
V - out
R + L out
Edited Output Monitor
R + L in
V - in
or
Monitor 1
V - in
MONITOR OUTPUT
INPUT
S-VIDEO
AUX INPUT
OUTPUT
POWER
Monitor 2
V - in
Input #2 Camera or VCR
R + L out
V - out
A C Adapter to 120VAC
or
R + L in
V - in
Recording VCR
Input #4 Camera or VCR
S - out
Monitor 4
V - in

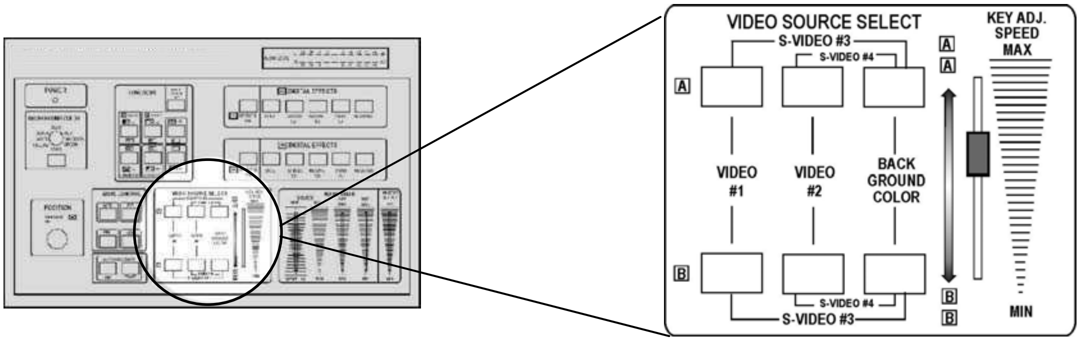
Section 1 – Power Indicator



POWER INDICATOR – The POWER INDICATOR light shows at a glance that this device is turned on.

Section 2 – Video Source Select

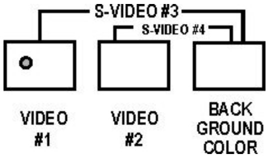
You can make a transition between any two sources while applying digital effects, wipes, color keys and PIP modes.


VIDEO SOURCE SELECT
S-VIDEO #3
S-VIDEO #4
A
VIDEO #1
VIDEO #2
BACK GROUND COLOR
B
KEY ADJ. SPEED
MAX
MIN

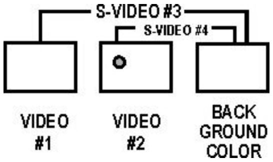
Use these buttons to select from 4 video inputs and 1 color background as follows: Note that any one of the five inputs can be selected for Source A and Source B.

Input configurations

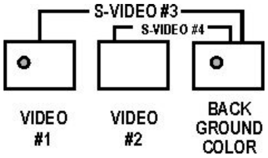
Video #1


S-VIDEO #3
S-VIDEO #4
VIDEO #1
VIDEO #2
BACK GROUND COLOR

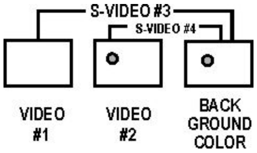
Video #2


S-VIDEO #3
S-VIDEO #4
VIDEO #1
VIDEO #2
BACK GROUND COLOR

S-Video # 3

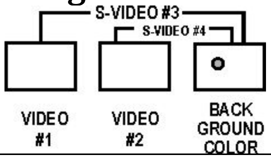

S-VIDEO #3
S-VIDEO #4
VIDEO #1
VIDEO #2
BACK GROUND COLOR

S-Video # 4


S-VIDEO #3
S-VIDEO #4
VIDEO #1
VIDEO #2
BACK GROUND COLOR

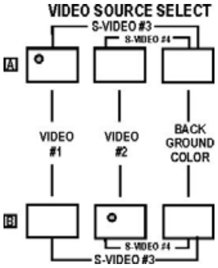
To select the S-video #3 (or #4) input press the Video #1 (or #2) and the Background Color buttons at the same time (as illustrated above).

Background Color


S-VIDEO #3
S-VIDEO #4
VIDEO #1
VIDEO #2
BACK GROUND COLOR

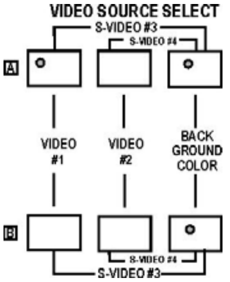
Two Sample set-ups

Example #1
Video #1
Source A


VIDEO SOURCE SELECT
S-VIDEO #3
S-VIDEO #4
A
VIDEO #1
VIDEO #2
BACK GROUND COLOR
B

Video #2
Source B

Example #2
S-Video Input #3
Source A


VIDEO SOURCE SELECT
S-VIDEO #3
S-VIDEO #4
A
VIDEO #1
VIDEO #2
BACK GROUND COLOR
B

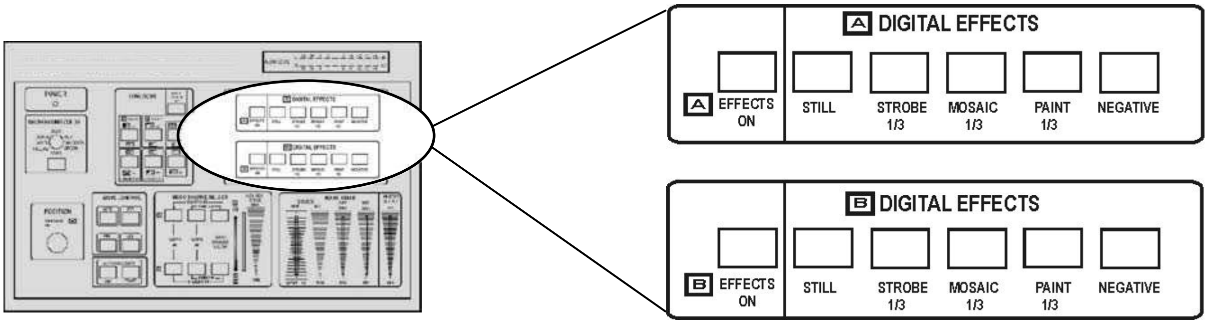
Background Color
Source B

To toggle between S-video and composite video inputs within a single source try this sequence. Use only buttons in Source A for this example.

1. Select S-video #3 by pressing Video #1 and Bkgd Color at the same time.
2. Select Video #2 by pressing Video #2 button..
3. Return to S-video #3 by pressing Video #1.
4. Exit S-video mode and return to Video # 1 by pressing Video #1 and Bkgd Color at the same time

Video Slide Control - The A/B slide controls several transition functions. Moving it between A and B allows you to fade between sources in the FADE mode. The slide performs A/B wipes in the WIPE mode and controls the speed of wipes in the AUTO mode. In the KEY mode, the slide makes color adjustments. Practice using the slide to gain mastery over smooth transitions.

Section 3 - Digital Effects (Source A & B)



EFFECTS ON (A and B) – This off/on button allows you to activate digital effects for either source A or B or both. Press once to turn on, press a second time to turn off. The red LED indicates that the effects are activated for the given source. Note: This button must be ON for any of the effects below to work.

STILL - The STILL effect freezes the picture on the screen, but allows the audio track to continue. Press once to select STILL, press a second time to turn off. The red LED is on when the STILL effect is selected.

STROBE - The STROBE button creates video stop-action effects. Three STROBE speeds are available. Press once to turn on STROBE at high speed, press a second time to set to a medium speed and press a third time to set to a low speed. Press a fourth time to turn off. The red LED is on when the STROBE effect is selected.

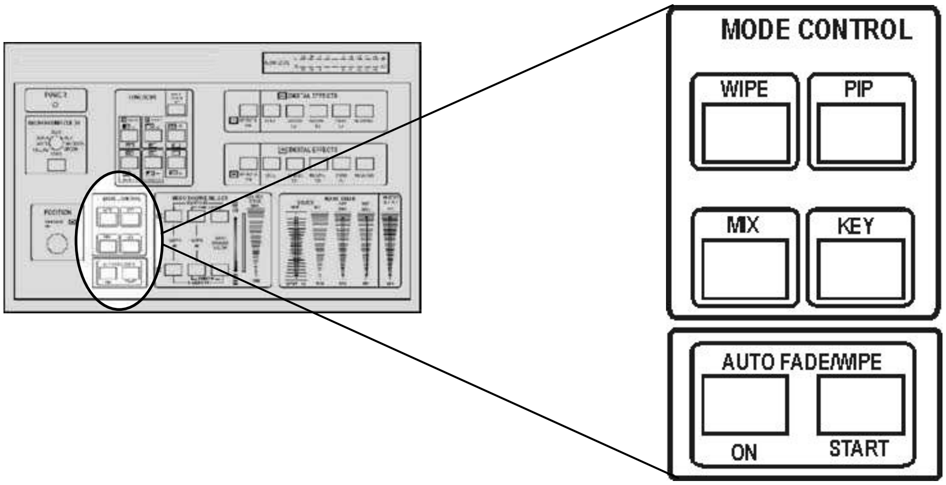
MOSAIC - The MOSAIC button breaks up the video image up into a pattern of squares rendering the selected image area un-recognizable. (Commonly used in news and police shows to disguise identities.) There are three sizes of MOSAIC squares available. Each time you press the button, the effect shifts to the next size. Press a fourth time to turn off. The red LED is on when the MOSAIC effect is selected.

PAINT - The PAINT effect (sometimes called POSTERIZATION) merges shades of colors and creates an abstract type of picture. Three levels of intensity are available. Press the button three times to select the three different PAINT effects. Press a fourth time to turn the PAINT effect off. The red LED is on when the PAINT effect is selected

NEGATIVE - The NEGATIVE effect creates a negative image of the video selected. Press once to select NEGATIVE and press a second time to turn off. The red LED is on when the NEGATIVE effect is selected.

Note: These effects can be combined. STILL or STROBE can be used with MOSAIC, PAINT and NEGATIVE. Select several effects at once and apply when desired by pressing the EFFECTS ON button.

Section 4 – Mode Control



MODE CONTROL – These keys allow you to select the type of transition between two sources. **Note: All of the transitions are made by using the A/B slide control located in the Video Source Select box.**

The **WIPE** button allows you to replace one source with another using a variety of wipe patterns as selected in the function box.

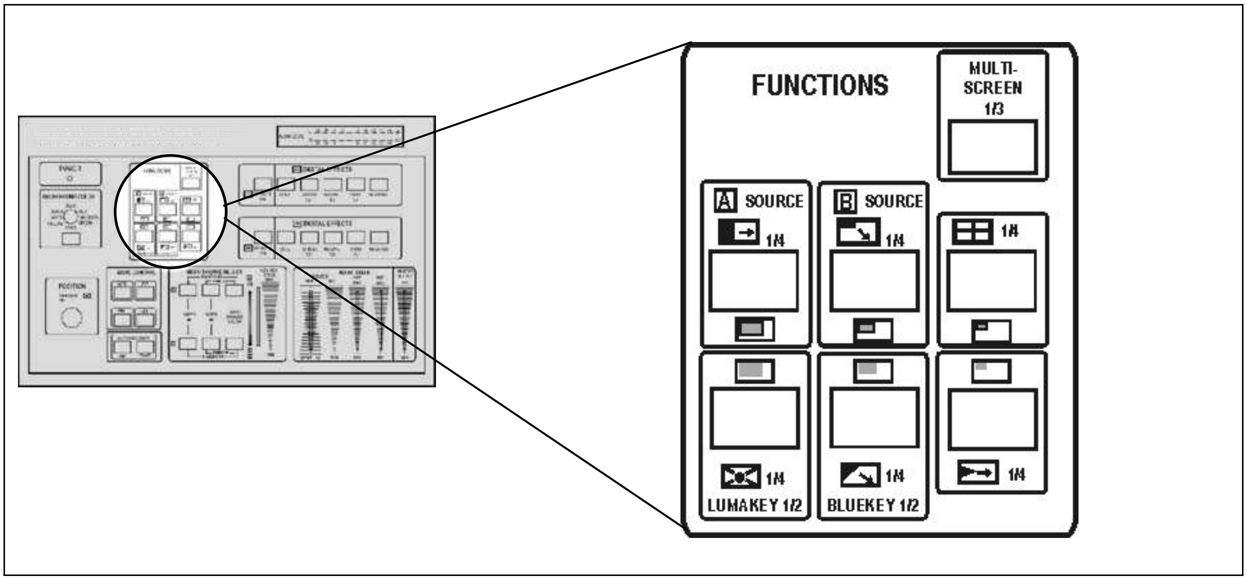
PIP stands for Picture-in-Picture. This mode allows you to place an image from Source B in a smaller window that appears within Source A. (The PIP window is always Source B.) The PIP window can be positioned using the joystick control and the A/B slide control let you fade the PIP image in and out. The PIP window is available three sizes and can be shown with or without a border as selected in the function box.

The **MIX** button lets you dissolve from one source to another smoothly and gradually using the A/B slide control.

The **KEY** button allows you to replace one source with another by keying on a pre-selected color (Blue key) or brightness (Luma key). For example, when keyed on black, Source A would replace source B beginning with all black areas of color and progressing to a complete transition. The slide control adjusts for color intensity or brightness to optimize keying the function buttons (Blue and Luma keys). Each has two settings, so you can replace the blue with the other source or replace everything except the blue with the other source. A Source and B Source buttons let you select which source is used to key.

The **AUTO FADE/WIPE** performs wipes and fades automatically at a speed you select. Press the ON button to activate the AUTO WIPE control. Press the START button to execute the transition. The speed of the wipe is determined by the setting of the control slide located in the Video Source Select box. The Start LED is on during a transition.

Section 5 – Functions



FUNCTIONS – These buttons allow you to select a variety of wipe patterns, PIP modes and color key selections. Some of the buttons in this section are marked 1/2, 1/3 or 1/4 indicating they are two, three or four step buttons that provide more than one selection. Each time you press the button it advances to the next option.

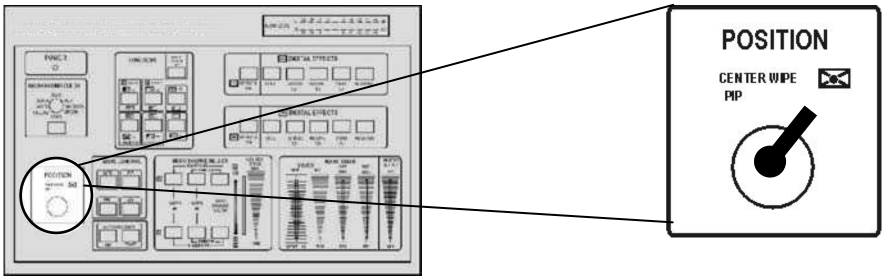
These buttons are also color coded in coordination with the color-coding on the buttons in the MODE CONTROL box.

WIPE = Purple, PIP = Green, MIX = Yellow, KEY = Aqua, AUTO WIPE = Blue
For example, when the WIPE button is selected in the MODE CONTROL box, the FUNCTION buttons will provide the selections highlighted in purple.

The **MULTI SCREEN** button provides a variety of unique wipe patterns including diamond shapes and window-blind effects. It only works in the WIPE mode.

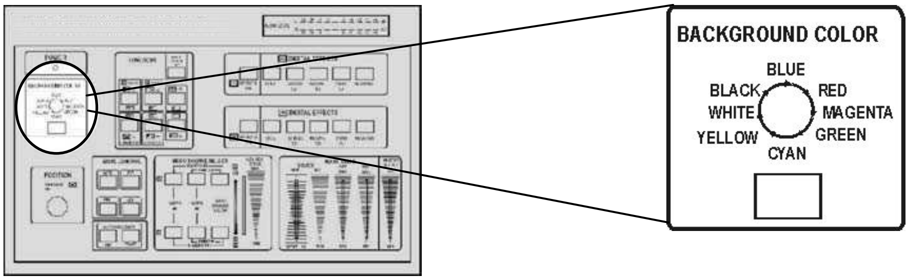
The remaining buttons offer wipe and PIP selections as indicated. The two buttons on the bottom left hand side of the box also provide LUMA KEY and BLUE KEY selections that are made available by pressing the KEY button in the MODE CONTROL box.

Section 6 – Joystick Control


POSITION
CENTER WIPE
PIP

JOYSTICK CONTROL – The JOYSTICK control allows you to position and move the PIP window and the center wipe function as needed to achieve the desired results.

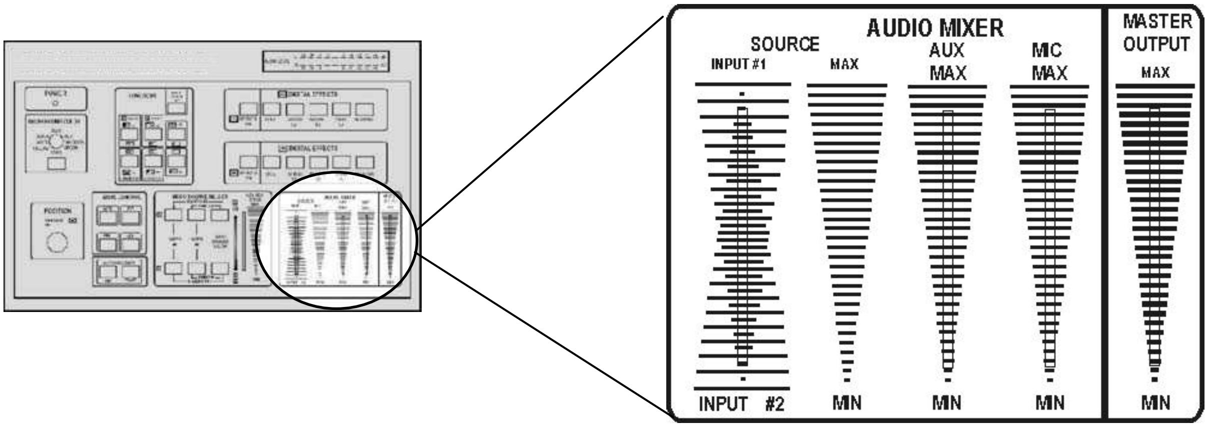
Section 7 – Background Color


BACKGROUND COLOR
BLUE
BLACK
RED
WHITE
MAGENTA
YELLOW
GREEN
CYAN

BACKGROUND COLOR – The BACKGROUND COLOR control allows you to select one of 8 colors to use in wipes, and edits keying on colors. The available colors are BLUE, RED, MAGENTA, GREEN, CYAN, YELLOW, WHITE and BLACK. The colors are selected in rotating order by successive presses of the background color button.

Section 8 - Audio Mixer

The audio mixer allows to mix the soundtrack from 2 video sources, an audio source (background music) and a microphone. **Note:** the audio sources are controlled independently from the video sources. Changing the video source, doing fades or wipes for example, does not change the audio source.



SOURCE (Input #1 - Input #2)– This slide dissolves from the audio track on Input #1 to the audio track on Input #2 when the slide is moved from the top to the bottom. When left at center, both tracks are mixed evenly.

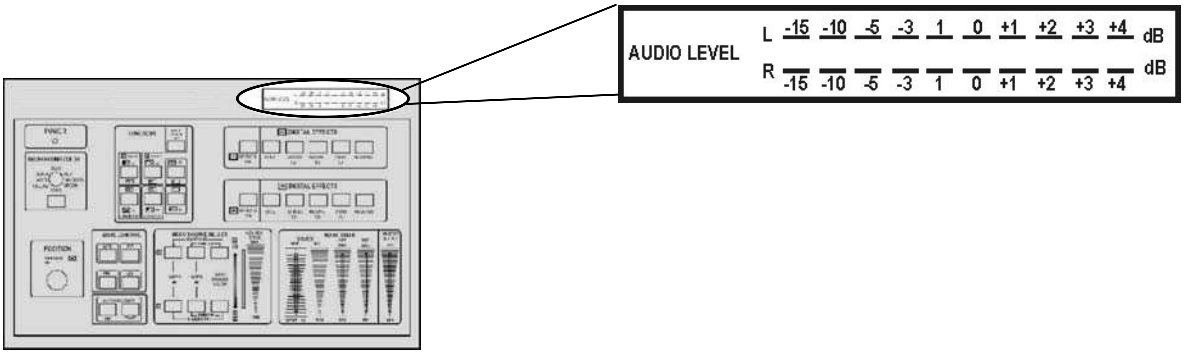
SOURCE MAX / MIN – This slide controls the audio level of the source selected with the SOURCE slide. If the SOURCE slide is set at the top (Input #1) then the level input of Source #1 can be increased or reduced using this control.

AUX MAX / MIN – This slide controls the audio level from an auxiliary source. Background music or another audio track can be added to your edited video and its level is controlled with this slide.

MIC MAX / MIN – This slide controls the audio level of the microphone input. This is used when narration or another miked audio track is added to an edited video.

MASTER – This slide controls the overall output level of all mixed audio tracks.

Section 9 – Audio Level


AUDIO LEVEL
L -15 -10 -5 -3 1 0 +1 +2 +3 +4 dB
R -15 -10 -5 -3 1 0 +1 +2 +3 +4 dB

AUDIO LEVEL – This display allows you to visually monitor the audio level produced by the audio output controls located on the Audio Mixer control box. This displays the mixed audio signal that is being output by the PIPV3 to tape. Try to keep the audio level from exceeding the 0 dB level to avoid distortion.

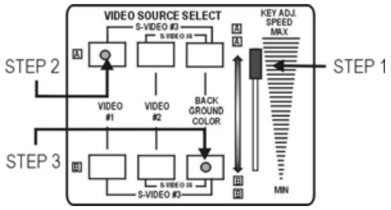
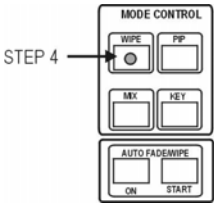
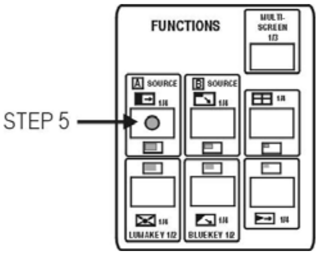
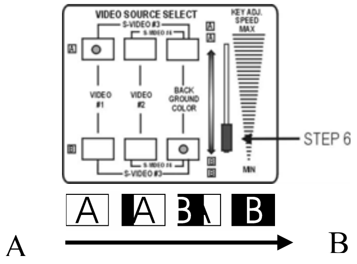
BASIC OPERATION

Hook up – First connect the 120V AC power cord to the 18V power supply. Plug the power supply into the PIPV3 and into a 120V AC outlet. Connect the PIPV3 to video and audio sources as desired. This video mixer can accept 2 composite video input sources and 2 S-video sources. It can also accept up to 4 audio input sources including a microphone and an auxiliary source. Be sure to hook up a video monitor to view your editing.

Power up – The power switch for the PIPV3 model is found on the rear panel of the unit. Turn on the PIPV3. With power on, the power indicator light on the front panel and several red LED lights located on control buttons will light up.

Editing – After mastering the basics of source selection, applying effects and using wipe, key, PIP and background color functions, you will be able to create professional looking tapes for your enjoyment. The next several pages demonstrate basic editing procedures. Make sure all connections are correct and all equipment (VCRs, TVs, tape players etc...) is powered on. By using this PIPV3 unit repeatedly and experimenting with the controls, you will become familiar with it.

To Try a Typical A / B Wipe

Step 1 Push the slide on Video Source Select to the top "A" position. **Step 2 Select any video input to be Source A by pushing the appropriate button(s).** **Note**: To select S-Video #3 press both end buttons at the same time. To select S-Video #4 press the middle and far right button at the same time. Red LED lights indicate which input is selected. (Video #1 is selected in the example at right.) **Step 3 Select any video input to be Source B by pushing the appropriate button(s).** (Background color is selected as Source B in the example at right.) Move the slide control between the "A" and "B" positions to view the two source images.	**Source Selection**  VIDEO SOURCE SELECT S-VIDEO #3 S-VIDEO #4 KEY ADJ. SPEED MAX STEP 2 STEP 1 A VIDEO #1 VIDEO #2 BACK GROUND COLOR STEP 3 B MIN
Step 4 Press the WIPE button (purple) in the MODE CONTROL box. **TIP:** MODE controls determine the type of transition you want to make between Source A and Source B. The wipe selection lets you replace one SOURCE with another by "wiping" images across in the screen in various patterns. Wipe patterns are selected by pressing buttons in the FUNCTIONS control panel.	**Mode Selection**  MODE CONTROL WIPE PIP STEP 4 MIX KEY AUTO FADE/WIPE ON START
Step 5 Press the upper left hand button marked "A Source" in the FUNCTIONS control panel. This is a four-step button (1/4) which gives you a different wipe pattern each time you press the button. The 4 patterns available with this button are: R to L, Top to Bottom, L to R, or Bottom to Top. **TIP:** Icons in the purple color-coded area indicate the choice of wipe patterns. Each button in the FUNCTION control panel provides a choice of 4 wipe patterns except the Multi-Screen button. The Multi-Screen button works in combination with the other wipe patterns providing 3 multi-screen patterns and an "Off" position. The red LED lights indicate which wipe pattern is selected.	**Wipe Type Selection**  FUNCTIONS MULTI-SCREEN 1/3 A SOURCE 1/4 B SOURCE 1/4 1/4 STEP 5 1/4 1/4 1/4 LUMAKEY 1/2 BLUEKEY 1/2
Step 6 Move the slide control from "Source A" to "Source B" to make the transition. The example (bottom right) shows a L to R wipe pattern. Your wipe pattern will depend on the setting of the four-step button selected in Step 5. **TIP:** After completing the wipe, press the four-step button again to change the pattern. Now move the slide from the "Source B" to the "Source A" position. Experiment with all the different four-step buttons and the Multi-screen button, changing wipe patterns until you are comfortable with them.	**Wipe**  VIDEO SOURCE SELECT S-VIDEO #3 S-VIDEO #4 KEY ADJ. SPEED MAX VIDEO #1 VIDEO #2 BACK GROUND COLOR STEP 6 MIN A B

To Try a Typical MIX (Dissolve)

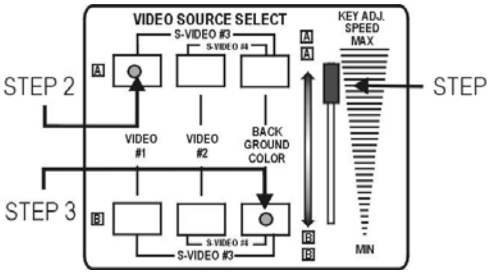
Step 1 Push the Video Source Select slide to the top "A" position.

Step 2 Select any video input to be Source A by pushing the appropriate button(s).

Note: To select S-Video #3 press both end buttons at the same time. To select S-Video #4 press the middle and far right button at the same time. Red LED lights indicate which input is selected. (Video #1 is selected in the example at right.)

Step 3 Select any video input to be Source B by pushing the appropriate button(s). (Background color is selected as Source B in the example at right.) Move the slide control between the "A" and "B" positions to view the two source images.

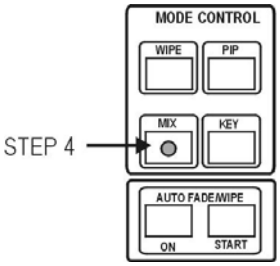
Source Selection


VIDEO SOURCE SELECT
S-VIDEO #3
S-VIDEO #4
KEY ADJ. SPEED
MAX
STEP 2
STEP
A
VIDEO #1
VIDEO #2
BACK GROUND COLOR
STEP 3
B
MIN

Step 4 Press the MIX button (yellow) in the MODE CONTROL panel.

TIP: MODE controls determine the type of transition you want to make between Source A and Source B. The MIX selection lets you dissolve from one image into another smoothly and gradually. Use the MIX mode to fade to and from black.

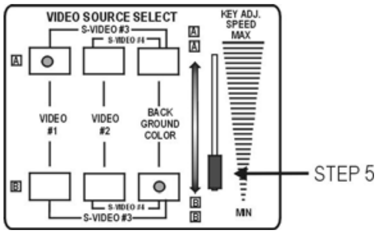
Mode Selection

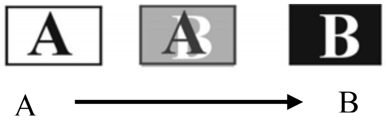

MODE CONTROL
WIPE
PIP
MIX
KEY
STEP 4
AUTO FADE/WIPE
ON
START

Step 5 Move the slide control from "Source A" to "Source B" to make the transition. The example (bottom right) shows an A to B mix.

TIP: The speed of the mix is determined by the speed with which you move the control slide. Also, after completing the mix, you can change the input for Source A and then return the slide to the A position to dissolve into a new image.

Mix

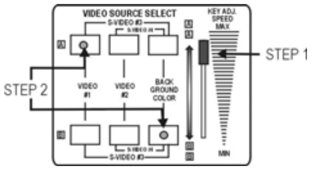

VIDEO SOURCE SELECT
S-VIDEO #3
S-VIDEO #4
KEY ADJ. SPEED
MAX
A
VIDEO #1
VIDEO #2
BACK GROUND COLOR
STEP 5
B
MIN



Typical PIP(Picture- In-Picture) Operations

Step 1 Push slide on Video Source Select to the top “A” position.
Step 2 Select video inputs for Source A and Source B by pushing the appropriate button(s). Note: Source A will always be the main picture and Source B will always be the inserted picture.
TIP: Remember – If the MODE button is set for WIPE or FADE, you can view the two source images by moving the slide control between the “A” and “B” positions.

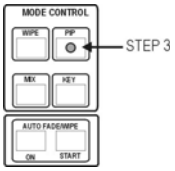
Source Selection


VIDEO SOURCE SELECT
S-VIDEO #3
S-VIDEO #4
KEY ADJ. SPEED MAX
STEP 1
STEP 2
VIDEO #1
VIDEO #2
BACK GROUND COLOR
MIN
A
B

Step 3 Press the PIP button (green) in the MODE CONTROL panel.

TIP: MODE controls determine the type of transition you want to make between Source A and Source B. The PIP selection lets you place a window containing one image into another. The PIP window is positioned by using the joystick control.

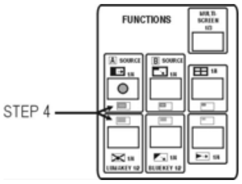
Mode Selection


MODE CONTROL
WIPE
PIP
STEP 3
MIX
KEY
AUTO FADE/WIPE
ON
START

Step 4 Select a PIP window pattern from the FUNCTIONS control panel.

TIP: PIP window options are color-coded in green. PIP windows can have a colored border or no border. There are three sizes of PIP windows to select.

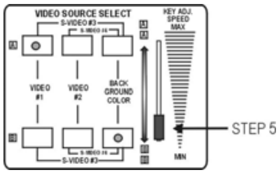
PIP Selection

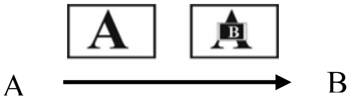

FUNCTIONS
MULTI SCREEN 1/3
A SOURCE
B SOURCE
STEP 4
LUMAKEY 1/2
BLUEKEY 1/2

Step 5 Move the slide control from “Source A” to “Source B” to make the transition.

TIP: The PIP window image can appear smoothly and gradually by controlling the Video Source Select slide or by using the AUTO FADE/WIPE mode.

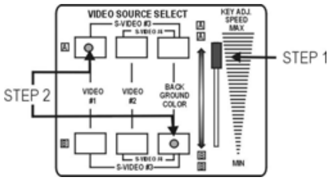
PIP

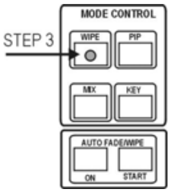

VIDEO SOURCE SELECT
S-VIDEO #3
S-VIDEO #4
KEY ADJ. SPEED MAX
VIDEO #1
VIDEO #2
BACK GROUND COLOR
STEP 5
MIN
A
B

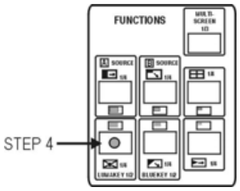


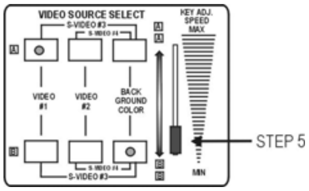
To Try a Typical Center Wipe

Step 1 Push the slide on Video Source Select to the top “A” position.
Step 2 Select inputs for Video Source A and Source B by pressing the appropriate buttons.
Step 3 Press the WIPE button in the MODE CONTROL panel.
Step 4 Press the CENTER WIPE button in the FUNCTIONS control panel as shown at right. This is also a four-step button. Each time you press it, a different center wipe shape is selected. The available options are: ● ⬬ ◆ ■ Use the joy stick to position the center wipe window.
Step 5 Move the slide control from “Source A” to “Source B” to enlarge or reduce the size of the center wipe window.
TIP: Use the AUTO FADE/WIPE mode to re-size the Center Wipe gradually and smoothly.


VIDEO SOURCE SELECT
S-VIDEO #3
S-VIDEO #4
KEY ADJ. SPEED MAX
STEP 1
STEP 2
VIDEO #1
VIDEO #2
BACK GROUND COLOR
MIN
A
B


MODE CONTROL
STEP 3
WIPE
PIP
MIX
KEY
AUTO FADE/WIPE
ON
START

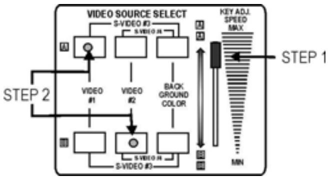

FUNCTIONS
MULTI SCREEN 1/3
A SOURCE
B SOURCE
STEP 4
LUMAKEY 1/2
BLUEKEY 1/2


VIDEO SOURCE SELECT
S-VIDEO #3
S-VIDEO #4
KEY ADJ. SPEED MAX
VIDEO #1
VIDEO #2
BACK GROUND COLOR
STEP 5
MIN
A
B

Try a Typical Key edit (LUMA KEY and BLUE KEY)

Step 1 Push slide on Video Source Select to the top "A" position.
Step 2 Select video inputs for Source A and Source B by pushing the appropriate button(s).

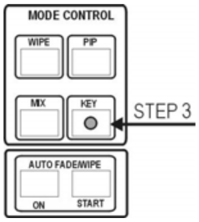
Source Selection


VIDEO SOURCE SELECT
S-VIDEO #3
S-VIDEO #4
KEY ADJ. SPEED MAX
STEP 1
STEP 2
VIDEO #1
VIDEO #2
BACK GROUND COLOR
MIN

Step 3 Press the KEY button in the MODE CONTROL panel.

TIP: There are two KEY modes: LUMA KEY and BLUE KEY. As you make the transition, the key color is replaced by the secondary image. A typical use for BLUE KEY edits is when news broadcasts superimpose a weather map behind the weatherman, who stands in front of a blue background. LUMA KEY keys on the brightness levels. BLUE KEY keys on a specific shade of blue (Pantone 293).

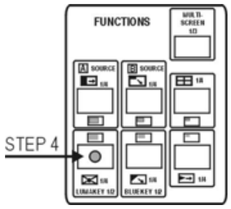
Mode Selection


MODE CONTROL
WIPE
PIP
MIX
KEY
STEP 3
AUTO FADE/WIPE
ON
START

Step 4 Select either the LUMA KEY or BLUE KEY button in the FUNCTIONS control panel as desired. (KEY choices are indicated by the icons in the yellow color-coded area.)

TIP: Both LUMA KEY and BLUE KEY buttons are 2-step buttons. Try each setting to determine the kind of key edit you want to key off the blue or everything but the blue.

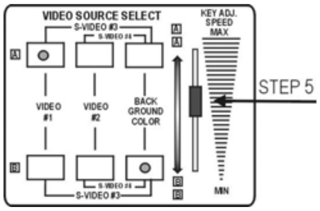
Key Selection


FUNCTIONS
MULTI-SCREEN 1/2
SOURCE
SOURCE
STEP 4
LUMAKEY 1/2
BLUEKEY 1/2

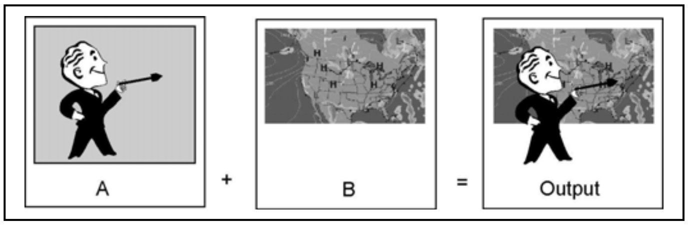
Step 5 Move the slide control in the Video Source Select control panel to make the transition.

TIP: As the slide is moved, colors are replaced from lightest to darkest by the secondary image. Experiment with the KEY edit to get the effect you want.

Key

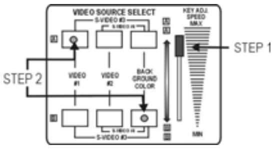
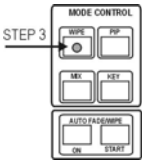
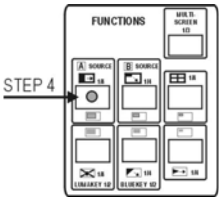
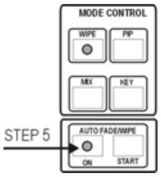
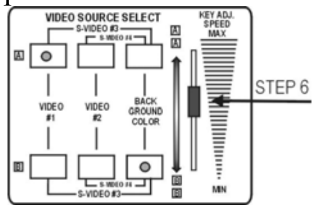
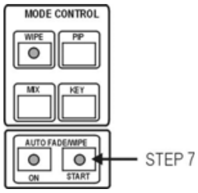
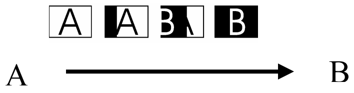

VIDEO SOURCE SELECT
S-VIDEO #3
S-VIDEO #4
KEY ADJ. SPEED MAX
VIDEO #1
VIDEO #2
BACK GROUND COLOR
STEP 5
MIN

Blue Screen tips: You can create a blue screen by applying a blue background to a flat wall. It is recommended to use a roll of heavy photographic background paper (Pantone 293) that can be purchased at a photographic or art supply store. Be careful not to fold or crease the paper. Folds and creases cause shadows that change the shade of blue and may affect the blue key effect. Place a subject in front of the blue screen and input this image as source A. Keep in mind that all of the blue will be replaced by another image when you do the blue key edit. As the slide is moved, the Pantone 293 blue and shades of blue similar to it are replaced by the image from source B. This is how a weatherman is superimposed onto a weather map. (See illustration at right.) If portions of the blue screen are not eliminated, it is because the shade of blue is out of the range of adjustment. This can be caused by shadows and reflections. Lighting is very important in your set-up. Try to make the lighting on the blue screen as even as possible.



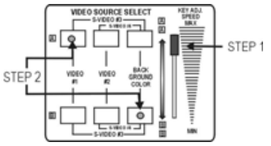
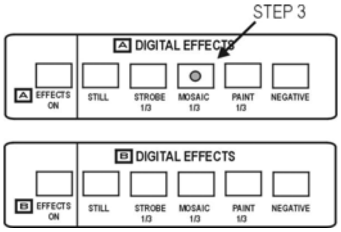
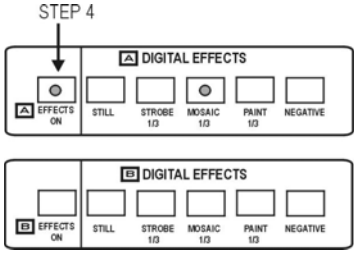
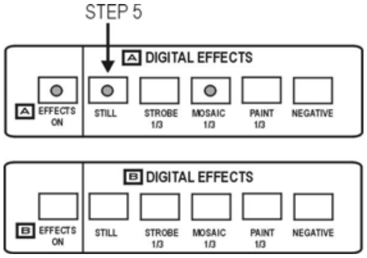
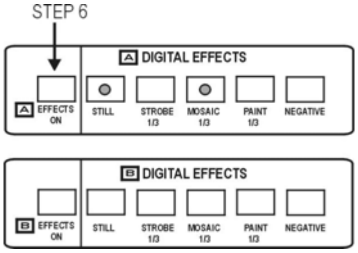
Luma key tips: The LUMA key can be used in the same way but with a black background. It will first eliminate the black background and then proceed to eliminate lighter shades from the subject image. Experimenting with these color key edits can produce some very creative and interesting effects **Tip**: Repeatedly pressing the BLUE or LUMA key, alternates between keying off the BLUE/LUMA or everything but the BLUE/LUMA key.

Typical Auto FADE/WIPE

Step 1 Push slide on Video Source Select to the top "A" position. **Step 2 Select video inputs for Source A and Source B by pushing the appropriate button(s).**	Source Selection  VIDEO SOURCE SELECT S-VIDEO #3 S-VIDEO #4 KEY ADJ. SPEED MAX STEP 1 STEP 2 VIDEO #1 VIDEO #2 BACK GROUND COLOR MIN
Step 3 Select WIPE from the MODE CONTROL panel. **TIP:** We will use WIPE for purposes of this example. However, the AUTO mode will work in combination with whichever button (WIPE, KEY, MIX, or PIP) is selected in the MODE CONTROL panel.	Mode Selection  MODE CONTROL STEP 3 WIPE PIP MIX KEY AUTO FADE/WIPE ON START
Step 4 Select one of the wipe patterns by pressing the appropriate button in the FUNCTIONS control panel. (Wipe patterns are indicated by the icons in the purple color-coded area.) **TIP:** After selecting the desired wipe pattern, perform the wipe manually by moving the slide control in the Video Source Select control panel. If the wipe pattern is the one desired, reset the slide to the top "A" position before proceeding.	Wipe Selection  FUNCTIONS MULTI-SCREEN STEP 4 A SOURCE B SOURCE LUMAKEY BLUKEY
Step 5 Press the ON button (blue) in the AUTO FADE/WIPE section of the MODE CONTROL panel. **TIP:** Once pressed, the ON button changes the function of the Video Source Select slide control. The slide now controls the speed of the auto wipe. (This is indicated in the blue color-coded type above it.)	Auto Wipe/Fade Selection  MODE CONTROL WIPE PIP MIX KEY STEP 5 AUTO FADE/WIPE ON START
Step 6 Position the slide control where desired to set the speed of the auto wipe. **TIP:** The speed of the auto wipe is determined by the setting of the control slide. The top "A" position is fastest. The bottom "B" position is slowest.	Set Speed  VIDEO SOURCE SELECT S-VIDEO #3 S-VIDEO #4 KEY ADJ. SPEED MAX STEP 6 VIDEO #1 VIDEO #2 BACK GROUND COLOR MIN
Step 7 Press the START button to execute the automatic wipe. The wipe is illustrated below the Step 7 diagram at right **TIP:** You can change the speed of the transition while the auto wipe is in progress by moving the slide control. The red LED light on the START button will stay lit for the duration of the auto wipe. Pressing the START button a second time during the auto wipe will pause the transition. Press a third time to resume progress.	Auto Wipe/Fade  MODE CONTROL WIPE PIP MIX KEY AUTO FADE/WIPE ON START STEP 7 

Digital Effects

This system provides total of 5 digitally generated effects that can be applied to video images from Source A, Source B or both. Some of the effects have more than one setting and some can be used in combination. (See Section 1 – Digital Effects for more information.) All of the effects can be turned on or off by pressing the EFFECTS ON button. The red LED light indicates which effects are selected and whether they are turned on or off.

Step 1 **Push the slide on Video Source Select to the top “A” position.** **Step 2** **Select video inputs for Source A and Source B by pushing the appropriate button(s).**	Source Selection  VIDEO SOURCE SELECT S-VIDEO #1 KEY ADJ. SPEED MAX STEP 1 STEP 2 VIDEO #1 VIDEO #2 BACK GROUND COLOR S-VIDEO #3 MIN
Step 3 **Press the MOSAIC button in the DIGITAL EFFECTS (Source A) control panel.** The red LED light will indicate the MOSAIC effect is selected. You can control effects for Source B by following the same steps using the buttons for Source B **TIP:** We will use MOSAIC for purposes of this example. MOSAIC is a four-step button with three mosaic patterns and off. To become familiar with all of the effects, use this sequence on each.	Effects Selection  STEP 3 A DIGITAL EFFECTS A EFFECTS ON STILL STROBE 1/3 MOSAIC 1/3 PAINT 1/3 NEGATIVE B DIGITAL EFFECTS B EFFECTS ON
Step 4 **Press the EFFECTS ON (Source A) button to view the mosaic effect.** Press the MOSAIC button again to select a different mosaic pattern.	Activate Effects  STEP 4 A DIGITAL EFFECTS A EFFECTS ON STILL STROBE 1/3 MOSAIC 1/3 PAINT 1/3 NEGATIVE B DIGITAL EFFECTS B EFFECTS ON
Step 5 **Press other effects buttons to see how they work in combination with the Mosaic effect.** **TIP:** STILL and STROBE can be combined with MOSAIC, PAINT or NEGATIVE effects. Experimentation is the best way to achieve success.	Combine Effects  STEP 5 A DIGITAL EFFECTS A EFFECTS ON STILL STROBE 1/3 MOSAIC 1/3 PAINT 1/3 NEGATIVE B DIGITAL EFFECTS B EFFECTS ON
Step 6 **Press the EFFECTS ON button a second time to turn the effects off.**	Turn Effects Off  STEP 6 A DIGITAL EFFECTS A EFFECTS ON STILL STROBE 1/3 MOSAIC 1/3 PAINT 1/3 NEGATIVE B DIGITAL EFFECTS B EFFECTS ON

The audio mixer controls permit you to mix and control the input and output levels of the audio tracks during your editing session. In addition to the audio tracks that accompany your video inputs, you can add audio from a microphone and an auxiliary source. These additional inputs allow you to do voice-overs and add music tracks easily and efficiently.

Overview: Audio tracks for Input #1 and Input #2 are routed through the audio mixer controls. If Input #1 and #2 are being used, you can use the auxiliary input as a third audio track.

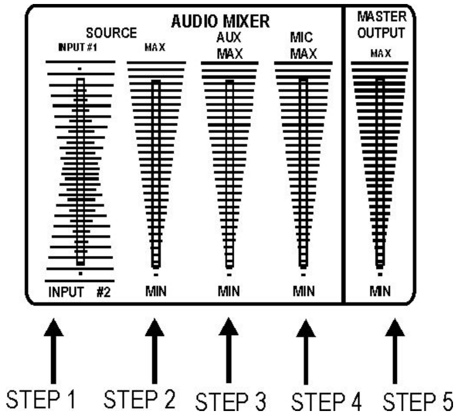
Step 1 The far left-hand slide control mixes the audio tracks from Input #1 and Input #2. Move the slide from top to bottom to dissolve from Input #1 to Input #2.

Step 2 The Max/Min slide controls the overall volume level output of the mix between Inputs #1 and #2.

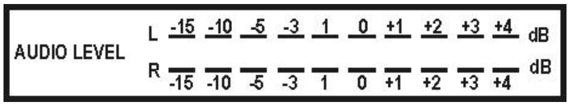
Step 3 The AUX slide control controls the volume level of the audio track routed through the auxiliary input.

Step 4 The MIC slide control controls the volume level of the audio track routed through the microphone input.

Step 5 The MASTER OUTPUT slide control controls the overall volume level of the mixed audio tracks of all the inputs. This is the volume level control for your output to tape.


AUDIO MIXER
SOURCE
INPUT #1
MAX
AUX
MAX
MIC
MAX
MASTER
OUTPUT
MAX
INPUT #2
MIN
MIN
MIN
MIN
STEP 1
STEP 2
STEP 3
STEP 4
STEP 5

TIP: The audio level is displayed by the Audio Level meter, located in the top right hand corner of the PIPV3 (shown at right). Use this meter to monitor the master output volume level. Occasional peaks in the red zone (above 0 dB) are okay


AUDIO LEVEL
L -15 -10 -5 -3 1 0 +1 +2 +3 +4 dB
R -15 -10 -5 -3 1 0 +1 +2 +3 +4 dB

Troubleshooting

Worldwide Video System Support

By pressing special key combinations, you can change the video system of this device to make it compatible with different video formats used worldwide. This feature is not available on earlier versions of this product. If your manual includes this page, then the worldwide compatibility feature is fully functioning. The unit defaults to the NTSC (USA) setting.

Press the following key combination simultaneously for over 10 seconds to get your desired system

Color + ON(B-bus) ---------- NTSC (USA)
Color + Nega(B-bus) ------- NTSC 4.43
Color + Mosaic(B-bus) ----- Secam
Color + Still(B-bus) --------- PAL
Color + Strobe(B-bus) ---- PAL N
Color + Paint(B-bus) -------- PAL M

Note: When powered off, the unit retains the last worldwide setting selected.

TROUBLESHOOTING

Remember: before assuming there is technical problem, check all connections to be sure inputs and outputs are correctly hooked up.

Problem	Possible Cause	Remedy
LED's do not light up when the power is turned on.	AC adapter is not connectoed to Mixer or is not plugged into a working outlet	Attach adapter cable to the mixer. Try a different AC outlet
No picture or audio on output TV monitor.	• AC adapter is not connected to the Mixer or is not plugged into a working outlet • Recording VCR is not switched to LINE or AUX • VCR output not switched to VCR ***or*** TV not switched to channel 3 or 4. • Input Source A not in PLAY mode	Attach adapter cable to the mixer. Try a different AC outlet. Switch recording VCR to LINE or AUX input to accept signals through the A/V inputs. Refer to your VCR.
No audio on the output	Audio mixer slide(s) are set at minimum levels.	Move slide to appropriate setting
DIGITAL EFFECTS do not work – have no effect on the output.	Effects are selected but not turned on.	Press EFFECTS On button to apply effects.
Video output is rolling	Unit set to wrong video standard	Set to NTSC (USA) as described